THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte AMANULLAH KHAN

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Appeal No. 95-4550
Application 08/025,902[1]

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ON BRIEF

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Before CALVERT, Administrative Patent Judge, McCANDLISH, Senior Administrative Patent Judge, and ABRAMS, Administrative Patent Judge.

McCANDLISH, Senior Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 1 through 10 under 35 U.S.C. § 103. No other

[1]Application for patent filed March 3, 1993. According to appellant, this application is a continuation of Application 07/686,729, filed April 17, 1991, abandoned.

claims are pending in the application.

The invention disclosed in appellant's application is an apparatus for supporting a read/write transducer head slider in a disc type data storage system. The apparatus mainly comprises a load beam (300) connected to an actuator arm (200) and a flexure (400) having (a) a first portion (420) attached to one end of the load beam and (b) a second portion (410) configured to receive a slider (500).

According to claims 1 and 6, the only independent claims on appeal, the flexure includes a double bend bight portion (450) interconnecting the first and second flexure portions. The bend axes defined by the double bend are substantially perpendicular to the longitudinal axis of the flexure such that the second flexure portion lies along a plane substantially parallel to the plane of the first flexure portion. Both of the independent claims on appeal recite that a dimple (460) is disposed on the second flexure portion proximate to the bight portion to permit the flexure to pitch and roll about a contact point (465) between the dimple and the load beam. Claim 1 is directed to the combination of the actuator arm, the load beam and the flexure,

whereas claim 6 is directed to the flexure per se.

A copy of the appealed claims, as these claims appear in the appendix to appellant's brief, is appended to this decision.

The following references are relied upon by the examiner as evidence of obviousness in support of his rejections under 35 U.S.C. § 103:

Yamada	4,896,233	Jan. 23, 1990
Yumura et al. (Yumura)	5,079,660	Jan. 07, 1992
		(Filed Jun. 29, 1989)

Two grounds of rejection of the appealed claims are separately stated in the answer. First, the examiner states that claims 1 through 10 stand rejected under 35 U.S.C. § 103 as being unpatentable over Yumura in view of Yamada. Second, the examiner states that claims 1 through 10 stand rejected under 35 U.S.C. § 103 as being unpatentable over Yamada in view of Yumura. Both of these references disclose structures for supporting a read/write transducer head slider in a disc type data storage system.

With regard to the first rejection mentioned above, the examiner concludes that the teachings of Yamada would have made it obvious to provide the flexure in the head-supporting apparatus of Yumura with a double bend bight portion of the type

defined in the appealed claims. With regard to the second rejection mentioned above, the examiner concludes that the teachings of Yumura would have made it obvious to offset Yamada's dimple from the center of Yamada's slider-supporting flexure portion in a direction to lie in the proximity of Yamada's double bend bight portion. Implicit in the first rejection is the finding that the only difference between Yumura and appealed claims 1 and 6 resides in the double bend flexure bight portion as defined in these independent claims, and implicit in the second rejection is the finding that the only difference between Yamada and claims 1 and 6 resides in the offset location of the dimple as defined in these claims. Appellant does not argue otherwise.

In arguing the patentability of claims 1 through 8 as a group, appellant contends that Yumura teaches away from the use of a double bend flexure bight portion to defeat the motivation to combine the reference teachings for the reasons set forth on pages 9-13 of the brief. In apparent support of this argument, appellant contends on page 11 of the brief that Yumura and Yamada "seek to solve separate and distinct problems." In further arguing the patentability of claims 1 through 8 as a group,

appellant contends that there is no suggestion for combining the reference teachings in the manner proposed by the examiner (see, for example pages 12 and 13 of the brief). In particular, appellant contends on page 14 of the brief that there is no suggestion to modify the position of the dimple, presumably the dimple in the Yamada reference inasmuch as the location of the dimple in Yumura's flexure corresponds to appellant's claimed location.

With regard to claims 9 and 10, appellant contends that the prior art lacks a suggestion of positioning the head slider in the manner recited in these claims.

We have carefully considered the issues raised in this appeal together with the examiner's remarks and appellant's arguments including those outlined supra. As a result, we will sustain the rejections of claims 1 through 8, but not the rejections of claims 9 and 10.

Considering first the rejection of claims 1 and 6 based on Yumura in view of Yamada, appellant expressly relies on the description in column 2, lines 52-59 of the Yumura specification (see page 9 of the brief) in support of his contention that

Yumura expressly teaches away from appellant's invention. Our first difficulty with this argument is that the disclosure in column 2, lines 52-59 of the Yumura specification is not a description of Yumura's invention. Instead, it is a description of the prior art embodiment shown in Figure 5 of the Yumura drawings.

Furthermore, there is no statement in this or any other part of Yumura's specification which expressly states that a double bend bight such as Yamada's double bend bight should not be incorporated into the various flexure members shown in Yumura's drawings. As such, it cannot be said that Yumura "expressly teaches away" from the use of such a bight as argued on page 9 of the brief.

Contrary to appellant's argument in the paragraph bridging pages 10 and 11 of the brief, we find no statement in Yumura's specification which expressly denounces a double bend bight portion which in the terms of claim 1 results in "said second portion lying in a plane substantially parallel to the plane of the first portion." Other than the prior reference to column 2 of Yumura's specification on page 9 of the brief, appellant offers no citation to the record to support the contention in the

sentence bridging pages 10 and 11 of the brief. Appellant also proffers no evidence to support this argument. In fact, the prior art embodiment shown in Figure 5 of Yumura's drawings does appear to have a double bend bight such that the flexure portion attached to the load beam and the flexure portion mounting the transducer slider lie in parallel planes at least in the condition illustrated in Figure 5.

Finally, the mere fact that Yumura and Yamada may seek to solve somewhat different problems does not lead to the conclusion that Yumura teaches away from the use of Yamada's double bight portion to "enable a head slider to have substantially the same flexibility in both the rolling and pitching directions" (Yamada specification, column 2, lines 15-17). Such a teaching would have been ample motivation for one of ordinary skill in the art to incorporate Yamada's double bend flexure member or gimbal spring, as it is called in the Yamada specification, into Yumura's illustrated embodiments or, at the very least, the embodiment shown in Figure 2 of Yumura's drawings particularly in view of the fact that the prior art support mechanism, which Yamada seeks to improve and which is described in column 1, lines 21-37 of Yamada's specification, appears to correspond to the prior art

embodiment shown in Figure 2 of Yumura's drawings.

With regard to the rejection of claims 1 and 6 based on Yamada in view of Yumura, we are convinced that one of ordinary skill in the art would have recognized the effect of varying or changing the lever arm length between the point of contact of the dimple and the pivot axis of the bight upon factors such as the bending moment. Skill in the art is presumed, not the converse. In re Sovish, 769 F.2d 738, 743, 226 USPQ 771, 774 (Fed. Cir. 1985). We are therefore satisfied that one of ordinary skill in the art would have recognized the effect of shortening the lever arm length between the contact point of the dimple 25 and the pivot axis of the bight in Yamada's structure to offset the contact point of the dimple from the center of the flexure portion for the slider so that it lies in closer proximity to the bight portion of the flexure in the manner implicitly taught by Yumaura.

In view of the foregoing, we are satisfied that the combined teachings of the applied references, whether taken as Yumura in view or Yamada or Yamada in view of Yumura, would have suggested the subject matter of claims 1 and 6 to one of ordinary skill in the art to warrant a conclusion of obviousness under the test set

forth in In re Keller, 642 F.2d 413, 420, 208 USPQ 871, 881 (CCPA 1981). Accordingly, we will sustain the rejection of claims 1 and 6 based on Yumura in view of Yamada and also the rejection of these claims based on Yamada in view of Yumura. In addition, we will sustain the rejection of dependent claims 2 through 5, 7 and 8 based on Yumura in view of Yamada, as well as the rejection of these dependent claims based on Yamada in view of Yumura, because the patentability of these dependent claims has not been argued separately of their respective parent claims. See In re Nielson, 816 F.2d 1567, 1570, 2 USPQ2d 1525, 1528 (Fed. Cir. 1987) and In re Burckel, 592 F.2d 1175, 1178-79, 201 USPQ 67, 70 (CCPA 1979).

With regard to the rejections of dependent claims 9 and 10, each of these dependent claims defines a unique position of the transducer head slider with respect to the free end of the flexure member. According to claim 9, the claimed location prevents wiring for the transducer from crashing onto a disc, and according to claim 10 the claimed location allows the flexure to access more data. We find no suggestion in the cited prior art that would have led one of ordinary skill in the art to modify either Yumura or Yamada to meet the terms of these dependent claims. As a result, both the examiner's rejections of claims 9 and 10 must fail for lack of a sufficient factual basis. See In

re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967).

In summary, the examiner's decision rejecting claims 1 through 8 on Yumura in view of Yamada and on Yamada in view Yumura is affirmed, and the examiner's decision rejecting claims 9 and 10 based on Yumura in view of Yamada and on Yamada in view of Yumura is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136 a.

AFFIRMED-IN-PART

IAN A. CALVERT Administrative Patent Judge	)	
HARRISON E. McCANDLISH Senior Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
NEAL E. ABRAMS Administrative Patent Judge	)	

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